

Date: Thursday, 2/23/2006 10:21:20 AM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: WEARPAD	
Job Number	: 25904		Part Number	: D26483	
Estimate Number	: 10313		Drawing Number	: D2648 REV D	
P.O. Number	: N/A		Project Number	: N/A	
This Issue	: 2/23/2006 S.O. No. : N/A		Drawing Revision	: D	
Prsht Rev.	: NC		Material	: N/A	
First Issue	: N/A		Due Date	: 3/20/2006	
Previous Run	: 24843		Qty:	400	Um: Each
Written By	: See comment below:				
Checked & Approved By	: KJ 06.02.23				
Comment	: Est: E 02.09.18 Re-format; Incorporated D2648-1 KJ/RF				

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	PG	PURCHASING	
		Comment: PURCHASING Issue P/O: 00000659 Email or ship DXF file to vendor Make per Drawing D2648-1 Material release note required	<i>Al 06/02/23</i>
2.0	D26483F	Wearpad	
		Comment: Qty: 1.0000 Each(s)/Unit Total: 400.0000 Each(s) WEARPAD	<i>2/24/103109 404</i>
3.0	PACKAGING 1	PACKAGING RESOURCE #1	
		Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material release note is attached	<i>2/24/103109 404</i>
4.0	QC6	DIMENSIONAL CHECK	
		Comment: DIMENSIONAL CHECK	<i>2/26/03/15 404</i>
5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1	
		Comment: SMALL & MEDIUM FAB RESOURCE 1 Deburr if necessary	<i>N/A 2/28/03/16 404</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services	Drawing Name: WEARPAD
Job Number: 25904	Part Number: D26483
Job Number:	
Seq. #: 6.0	Machine Or Operation: BRAKE NC
	Description: NC BRAKE
	
Comment: NC BRAKE	
1-Form as per Dwg D2648 on CNC brake using Jigs DT 8261 and DT 8326.	
2-Identify as D2648-3	
7.0	LARGE FAB 1
	Description: LARGE FABRICATION RESOURCE 1
	
Comment: LARGE FABRICATION RESOURCE 1	
Qty A/R560Hardcoat	Description: M100452 & M102299
Batch	M.F Hermine M.
1-Weld as per Dwg D2648 using Jig DT 8210	
2-Remove any weld that penetrated through Wearpadif necessary	
7.0	QC9
	Description: VISUAL WELDING INSPECTION
	
Comment: VISUAL WELDING INSPECTION	
9.0	QC5
	Description: INSPECT WORK TO CURRENT STEP
	
Comment: INSPECT WORK TO CURRENT STEP	
10.0	POWDER COATING
	Description: POWDER COATING
	
Comment: POWDER COATING	
12.0	PACKAGING 1
	Description: PACKAGING RESOURCE #1
	
Comment: PACKAGING RESOURCE #1	
Identify and Stock	
Location: FP16	
13.0	DC
	Description: DOCUMENT CONTROL
	
Comment: DOCUMENT CONTROL	
Inspection Level 21	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes  No  DQA:  Date: 06/04/07  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/04/07	7.0	2 scrapped. Weld burnt through the wear pad beyond repair. 1st timers.	<i>SD</i> <i>06/04/07</i>	Scrap and destroy	<i>MM</i> <i>06/04/07</i>	<i>SD</i> <i>06/04/07</i>	<i>SD</i> <i>06/04/07</i>	<i>SD</i> <i>06/04/07</i>

NOTE: Date & initial all entries

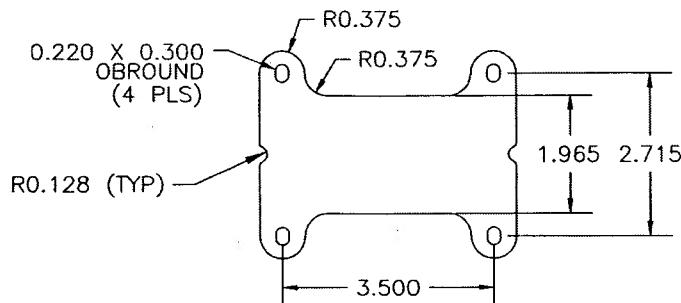
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

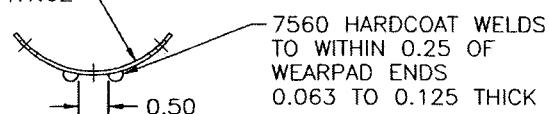
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

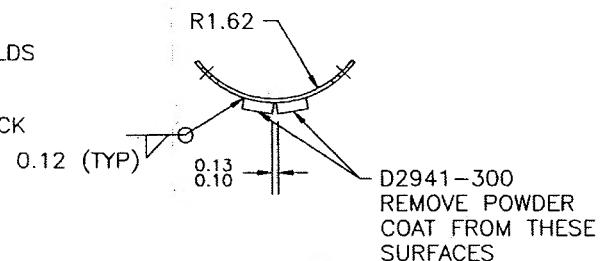
D2648-1 FLAT PATTERN



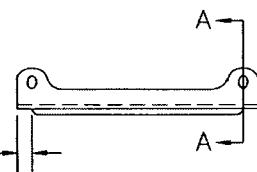
SECTION A-A



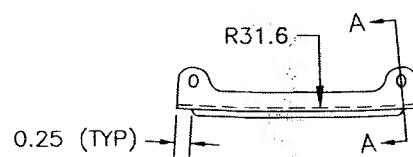
SECTION B-B



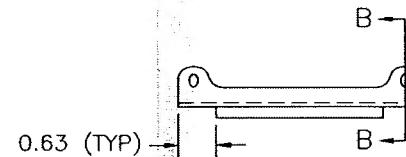
D2648-3 LONGITUDINAL BEND  
(MADE FROM D2648-1)



D2648-5 LONGITUDINAL BEND  
(MADE FROM D2648-1)



D2648-7 LONGITUDINAL BEND  
(MADE FROM D2648-1)



WORK ORDER NO. 25904  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

CONTROLED  
ENGINEERING  
RETURN TO  
SHOP COPY

BREAK ALL SHARP CORNERS 0.063 MAX  
MATERIAL: 16 GAUGE AISI 1010-1025 OR ASTM A36/A366 STEEL (0.063 THICK)  
FINISH: POWDER COAT GREY (REF. 4.3.5.5) PER DART QSI 005  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
ALL DIMENSIONS ARE IN INCHES

RELEASED  
12.20 DS

COPIED  
12.20

D	99.11.17	ADDED D2648-7
C	97.06.26	R31.6 WAS R19.6
B	97.05.30	ENLARGE O-BROUND, 0.375 WAS 0.250
A	97.03.25	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE USA, INC. BELLEVUE, WA
CHECKED	APPROVED	DRAWING NO. REV. D D2648 SHEET 1 OF 1
DATE		TITLE SCALE 99.11.17 WEARPAD 1:2



New Zealand Steel Limited  
Clybrosk, South Auckland  
Postal: Private Bag 92121, Auckland, New Zealand  
Telephones: (09) 375 8999 / 375 8111 Auckland  
(09) 235 8689 / 235 3535 Waiuku  
Fax: (09) 375 8959

## TEST CERTIFICATE

Ref: 5337/23317

CUSTOMER	Wilkinsen	P50505DI002												SPECIFICATION	ASTMA1008 CS Type A	C6-03-15				CERTIFICATE No	TC11S838				
CUSTOMER D/N	90-2JN-742													PRODUCT	CRA-WIDE-COIL					PAGE	1 of 1				
MILL D/N	486948													DIMENSIONS	8.033" x 48" x Coil					DATE	02 August 2005				
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT												MECHANICAL TESTS (TEST SPECIFICATION - ASTMA370)											
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE( )	x1000	x100	BEND	YIELD	T.S.	%ELONG	HARDNESS	r ( )
		x100												x10000	x100				180°						
R9-464817-00	844863	6	TR	20	7	17	15	23	14	2	3	1	3						Good				45		2618
R9-464818-00	844863	6	TR	20	7	17	15	23	14	2	3	1	3						Good				45		2664
R9-464819-00	779675	6	TR	20	14	16	11	21	13	2	3	1	3						Good				49		2618
R9-464820-00	779675	6	TR	20	14	16	11	21	13	2	3	1	3						Good				49		2825
R9-464821-00	779674	6	TR	21	13	17	13	22	17	2	3	1	3						Good				50		1923
R9-464822-00	779674	6	TR	21	13	17	13	22	17	2	3	1	3						Good				50		1978

P.O. 659

YIELD (A)=0.2% PROOF STRESS (B)=LOWER YIELD STRESS	GAUGE LENGTH (G.L.) (A)=200mm (B)=50mm	PLASTIC STRAIN RATIO (r) (C)=80mm (D)=5.65 / So (E)=2" (F)=r90	IMPACT TEST (C)=5mm x 5mm (D)=2.5mm x 10mm (E)=5mm x 10mm	CARBON EQUIVALENT VALUE (CE) (A)=C+Mn/6 (B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15 (C)=C+Mn/6+Si/24 (D)=

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED  
WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Batch Misra*  
QC METALLURGIST